

ABSTRACT OF THE DISCLOSURE

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An improved device for equilibrium dialysis procedures utilizing a dialysis membrane inserted in a gap in and separating all of any number of test wells contained in the dialysis block into at least a donating and receiving side which can be accessed and manipulated at any time during testing from the top of the device. ^{is described} The device may be constructed from a series of nine blocks of virgin teflon, cut and made flat to achieve certain dimensions ideal for making the device compatible with standard 96-well format laboratory equipment and conducive to robotic automation. The bars are placed side-by-side and connected by a pair of alignment pins along which the bars can slide on a horizontal plane relative to one another, individually or collectively, to aid in assembly, usage and cleaning. The bars are further held together during usage by a clamping mechanism to prevent any leakage of the sample being tested. Such wells are formed in an 8x12 array such that a diameter of each of the wells of a particular row corresponds to and overlaps with the separation gap between successive rows of the bars. The dialysis membranes are inserted into the gaps during assembly of the device, with one membrane inserted between each of the eight gaps formed between the nine rows of bars. The advantages of an equilibrium dialysis apparatus constructed in this manner include decreased cost, increased efficiency and ease in testing, and increased flexibility in testing methods.